WHAT IS CLAIMED IS:

- 1. A recombinant Sendai virus vector expressing chemokine.

 The recombinant Sendai virus vector of claim 1, wherein
- said chemokine is CXC-chemokine or CC-chemokine.
- 3. The recombinant Sendai virus vector of claim 2, wherein said CXC-chemokine is stromal cell-derived factor α or stromal cell-derived factor β .
- 4. The recombinant Sendai virus vector of claim 3, wherein said vector is disseminative.
- 5. The recombinant Sendai virus vector of claim 3, wherein said vector is infectious and replicates autonomously, but is not disseminative.
- A method of producing chemokine which comprises inserting at least one chemokine gene into a Sendai virus vector, allowing the vector to produce chemokine, and recovering chemokine.
- The method of claim 6, wherein said chemokine is CXC-chemokine or CC-chemokine.
- 8. The method of claim 6, wherein the step of recovering comprises the step of removing virions by centrifugation.
- 9. A method of treating human immunodeficiency virus infection, which comprises administering to human subjects a recombinant Sendai virus vector expressing CXC-chemokine or CC-chemokine and allowing the vector to express the chemokine in vivo.
- 10. A method of treating human immunodeficiency virus infection, which comprises collecting target cells from human subjects, infecting the cells with a recombinant Sendai virus vector expressing CXC-chemokine or CC-chemokine, and giving the infected cells back to the human subjects.
- 11. A pharmaceutical composition comprising a recombinant Sendai virus vector expressing stromal cell-derived factor α or stromal cell-derived factor β and a pharmaceutically acceptable carrier, wherein said vector is disseminative.
- 12. A pharmaceutical composition comprising a recombinant Sendai virus vector expressing stromal cell-derived factor α or stromal cell-derived factor β and a pharmaceutically acceptable carrier, wherein said vector is infectious and replicates autonomously, but is not disseminative.

13. A method of inhibiting HIV proliferation, which comprises infecting HIV-infected cells with a recombinant Sendai virus vector expressing chemokine and incubating the cells to allow production of chemokine.

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